

REMARKS

Claims 1 through 18 are pending in this application. Claims 1, 2, and 16 have been amended. Care has been exercised to avoid the introduction of new matter. Indeed, adequate descriptive support for the present Amendment should be apparent throughout the originally filed disclosure as, for example, Figs. 1 through 3 and 8 and the related discussion thereof in the written description of the specification. Applicants submit that the present Amendment does not generate any new matter issue.

Claims 1 through 6, 16 and 18 were rejected under 35 U.S.C. § 102 for lack of novelty as evidenced by Gardner et al.

In the statement of the rejection the Examiner referred to Figs 3A - 3E and the related text in the patent, asserting the disclosure of a method corresponding to that claimed. This rejection is traversed.

The factual determination of lack of novelty under 35 U.S.C. § 102 requires the identical disclosure in a single reference of each element of a claimed invention, such that the identically claimed invention is placed into the recognized possession of one having ordinary skill in the art. *Dayco Prods., Inc. v. Total Containment, Inc.* 329 F.3d 1358, 66 USPQ2d 1801 (Fed. Cir. 2003); *F.2d 1357*, 196 USPQ 670 (CCPA 1978); *Crown Operations International Ltd. v. Solutia Inc.*, 289 F.3d 1367, 62 USPQ2d 1917 (Fed. Cir. 2002). There are significant differences between the claimed method and method of Gardner et al. that scotch the factual determination that Gardner et al. disclose a method identically corresponding to that claimed.

Specifically, independent claim 1 is directed to a method comprising a sequence of manipulative steps, which manipulative steps include forming dielectric sidewall spacers on side

surfaces of the removable gate and removing the removable gate leaving an opening in the dielectric layer, which opening is defined by exposed side surfaces of the dielectric sidewall spacers and a bottom. No such manipulative steps are disclosed or suggested by Gardner et al. In fact, advertent to Figs. 3B – 3C, and the related discussion thereof in the patent text, it is apparent that Gardner et al. remove the dielectric sidewall spacers 308 prior to depositing the tantalum layer. In fact, Gardner et al. contemplate the formation of spacers 317 after formation of the replacement metal gate electrode, as apparent from column 7, lines 7 and 8.

The above argued difference in manipulative steps between the claimed method and the methodology of Gardner et al. is not the only difference. Specifically, the method defined in independent claim 1 comprises the further step of depositing a layer of tantalum lining the opening, the opening being defined by exposed side surfaces of the dielectric sidewall spacers. No such manipulative step is disclosed or suggested by Gardner et al. who, as apparent from Fig. 3D, do not deposit a layer of tantalum on the exposed side surfaces of the dielectric sidewall spacers.

Applicants separately argue the patentability of claims 2 and 16. Specifically, **claim 2** specifies that the layer of tantalum is deposited to line the opening, including the exposed side surfaces of the dielectric side wall surfaces. As previously pointed out, no such manipulative step is disclosed or suggested by Gardner et al.

Claim 16 requires the high-k gate dielectric layer to be formed on side surfaces of the dielectric side wall spacers. No such manipulative step is disclosed or suggested by Gardner et al. who form the hi-k gate dielectric layer 313 only at the bottom of the created opening, as apparent from Figs. 3D and 3E of Gardner et al.

The above argued difference in manipulative steps between the claimed method and the methodology of Gardner et al. undermine the factual determination that Gardner et al. disclose a method identically corresponding to that claimed. *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992); *Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986). Applicants, therefore, submit that the imposed rejection of claims 1 through 6, 16 through 18 under 35 U.S.C. § 102 for lack of novelty as evidenced by Gardner et al. is not factually viable and, hence, solicit withdrawal thereof.

Claims 7 through 15 and 17 were rejected under 35 U.S.C. § 103 for obviousness predicated upon Gardner et al.

This rejection is traversed. Specifically, claims 7 through 15 and 17 ultimately depend from independent claim 1. Applicants incorporate herein the arguments previously advanced in traversing the imposed rejection of claim 1 under 35 U.S.C. § 102 for lack of novelty as evidenced by Gardner et al. The Examiner's additional comments do not cure the previously argued deficiencies of Gardner et al. Accordingly, even if the methodology of Gardner et al. is modified as proposed by the Examiner, and Applicants do not agree that the requisite **fact-based** motivation has been established, particularly since the Examiner did not provide any additional objective evidence, the claimed invention would not result. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988).

Applicants, therefore, submit that the imposed rejection of claims 7 through 15 and 17 under 35 U.S.C. § 103 for obviousness predicated upon Gardner et al. is not factually or legally viable and, hence, solicit withdrawal thereof.

Based upon the foregoing, it should be apparent that the imposed rejections have been overcome and that all pending claims are in condition for immediate allowance. Favorable consideration is, therefore, solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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